January 11, 2008 Meeting –

CH2M HILL Office
1100 112th Ave NE
Bellevue, WA 98004
Cedar Conference Room
Phone: 425-453-5000

Members:

WSDOT	ACEC	Guests
Dick Stoddard (705.7217)	Mark Johnson (CH2M HILL)	none
Ron Lewis	Paul Bott (HDR)	
Matt Preedy	Steve Aisaka (Parametrix)	
Bill Prill	~~David Goodyear (TY Lin)~~	
	Jim Schettler (Jacobs)	
	Rich Johnson (HNTB)	
	Yuhe Yang (PB)	

9:00 am	30 min	• Review meeting minutes and action items • Review agenda for the meeting • Review membership • New topics

Notes:

The group reviewed the WSDOT/ACEC Structures Committee web page for last month's meeting minutes. Bill Prill and Dick Stoddard have updated and reformatted the web page. From now on, meeting agenda and minutes will be uploaded onto the website regularly.

Suggested that the committee take a look at the website and think about what other information to post.

Discussed new membership for WSDOT. Mark Anderson of the Bridge Office has expressed interest. Would be good to have representation from WSDOT regions – Matt will follow up on this.

Discussed the new AASHTO Guide Spec seismic provisions and the recent Design Memo dated 12/31 from the Bridge Office. The provisions in the Design Memo related to Section 6.8 for seismic design in areas of liquefaction will likely be revised, since design should consider the case of seismic inertial forces with liquefied soils.

9:30 am	2 hrs, 30 min	• Discussion of 2008 Committee Issues

Discussed issues for the committee to consider in 2008.

Co-location for Projects with Structural Design:
WSDOT is not requiring co-location of design staff for DB projects anymore. Co-location is, however, a criterion in scoring the DB proposal during selection. Feedback

that WSDOT is getting from the community is that contractors are driving the issue of co-location for a particular project. For the 520 floating bridge project, WSDOT provides liaison staff to the project office. It is not co-location, but staff is in project office on a daily basis.

Why is co-location important to the structural engineering field in particular? Specialized field, need technical resources within the group to stay abreast of frequent significant code changes. Also need critical mass of engineers and CADD technicians to efficiently deliver work.

For the I-5 Everett DB project, WSDOT provided Eric Schultz full time as bridge design liaison. It worked very well for the project, but took Eric out of the office for more than a year. For the I-15 Salt Lake City DB project, there was a core co-located office that was responsible for designing about half the bridges. The rest of the bridges were designed off-site. The group agreed that, once preliminary plans are finalized, final design can be accommodated off-site, since the important parameters have been defined. Not as much interdisciplinary coordination is require after the preliminary plans have been finalized.

Dick proposed that the committee prepare a memo to the committee sponsors documenting the pros and cons of co-locating design staff.

<u>DB Contracts - Structural Engineer of Record (EOR):</u>
There is a feeling that the current DB contracting approach does not have a lot of input from the design side. The concern is that the Engineer of Record (EOR) does not have a lot of control over the final product. This is particularly problematic for a public transportation facility in which the owner has limited control over how the facility is used. Because DB delivery is relatively new to the industry, it is not yet possible to assess how this has affected the long-term performance and maintenance needs of facilities.

The EOR may be taking on unreasonable responsibilities in a DB contract. Should the EOR be responsible for signing and stamping nonconformance reports? Maybe EOR is being held to a different standard in a DB contract. Jim mentioned an example with rock pockets in a concrete pour that had to be repaired for the I-405 DB contract. The contractor is asking that the EOR guarantee that repair procedures are corrected. The WSDOT Construction Office typically approves repair procedures, not the EOR.

Matt is looking at a different approach for QA for the SR 519 DB project. WSDOT is considering taking on more QA responsibilities and relaxing the warranty requirements. Up to now, the Contractor has been responsible for QA. If WSDOT takes on QA, it may lead to higher costs. The European model requires the contractor to be responsible for warranting the product for a certain number of years. Contractor then has the option of building a higher quality product with low maintenance requirements or a lower quality product with higher maintenance needs. However, one issue is that the facility cannot be used by the public during maintenance.

DB Contracts – Using WSDOT BDM as a contract-enforceable document:
The BDM becomes a reference document in a DB contract. The issue is that it is not written in contract-enforceable language. This can create problems if the contractor interprets the BDM differently than WSDOT in a DB contract.

Jim proposed that the committee review the BDM chapter-by-chapter to evaluate where there might be interpretation issues in a DB project. This evaluation could be a standing agenda item for future committee meetings. Jim will propose a schedule to review the chapters of the BDM. Per Ron, Chapters 3, 4, and 7 will be rewritten soon. The BDM will also be reissued this spring.

Updating as-built plans – Is there an issue with preparing as-built drawings in DB contracts? For the I-405 DB project, Jim is creating stamped record drawings that incorporate all RFIs. They are not, however, as-built drawings, since there are likely other field changes that the designer is unaware of that are not being captured. For D-B-B contracts, the Construction Office revises drawings based on what was built to create as-built plans and seals them.

Action: look into I-5 Everett DB and I-405 S Bellevue DB contracts to see what the contract requires the EOR to do in as-building the design plans (Jim, Mark).

Per Matt, State law requires as-built plans to be sealed. The group should verify what the law currently requires and what WSDOT policy is. Action: Ask Pasco – maybe invite him to the next meeting (Dick, Bill).

Special Provisions to the Standard Specifications –
This topic was discussed at the November committee meeting. Usually, WSDOT prepares the special provisions for consultant designs. However, for consultant-designed local agency projects, consultants prepare the special provisions. If WSDOT prepares the special provisions for a consultant design, who stamps the specials? Recommend training for spec writing to consultant community.

Summary of Committee Issues:

- Wrap up co-location issue with a memorandum, not a process change recommendation. Recommend that co-location be left as a business decision, not be mandatory. Currently, there is an incentive for co-location as WSDOT awards points for it during DB selection. Consider awarding points for co-location until preliminary bridge plans are complete. Also, consider having only core group of designers co-located, not entire design team, and rely on off-site design offices to perform the design.
- Other DB issues – should recommend having structural design representation on the WSDOT/AGC DB committee to allow contracting decisions to be made with structural engineer's input.

Other Ideas for Topics: Bridge Standard Drawings: It is time consuming to translate micro-GDS WSDOT Standard Plans to incorporate into projects. The standard drawings change fairly often as well, so translation has to be done often. It was suggested that one consultant do the translation. Or maybe some WSDOT CADD staff could do. Or keep two libraries online.		
12:30 pm.	30 min	Wrap Up Prepare for the next meeting Next meeting agenda: 1. Interface with Bijan and possibly Construction office 2. Evaluation of BDM in DB contracting (standing agenda item). 3. Review co-location memo (Dick will prepare draft) 4. EOR responsibility in preparing as-built design drawings for DB contracts
Notes: Next meeting –- WSDOT on February 8, 2008 in Tumwater		
1:00 pm.		Adjourn

Action Items for 2/8/08 Meeting:

- Look at ACEC website and consider other content to be added **(all)**
- Look into adding a WSDOT committee member from the region **(Matt)**
- Propose schedule to review BDM chapter-by-chapter regarding contract-enforceable language **(Jim)**
- Look into I-5 Everett DB and I-405 S Bellevue DB contracts to see what the contract requires the EOR to do in as-building the design plans **(Jim, Mark)**
- Ask Pasco about sealing as-built plans and invite to next meeting **(Dick, Bill)**
- Prepare draft memo regarding committee recommendations on co-location **(Dick)**